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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,855	03/12/2004	Hisashi Amaya	12054-0024	6672

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CLARK & BRODY
1090 VERMONT AVENUE, NW
SUITE 250
WASHINGTON, DC 20005

EXAMINER	
ROE, JESSEE RANDALL	
ART UNIT	**PAPER NUMBER**
1793	

MAIL DATE	DELIVERY MODE
12/03/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/798,855	AMAYA ET AL.	
	Examiner	Art Unit	
	Jessee Roe	1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8 and 13-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 1-8 and 13-20 are pending wherein claims 1-8 and 13-20 are amended and claims 9-12 are canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyata et al. (US 5,858,128).

In regards to claims 1 and 3, Miyata et al. ('128) discloses a martensitic stainless steel alloy pipe (plastically processed that would have utility in applications such as petroleum and natural gas pipelines having a composition relative to that of the instant invention as shown in the table below (abstract and col. 1, lines 8-11).

Element	From Instant Claims (weight percent)	Miyata et al. ('128) (weight percent)	Overlap (weight percent)
C	0.02 – 0.10	0 – about 0.03	0.02 – about 0.03
Si	0.05 – 1.0	0 – about 0.50	0.05 – about 0.50
Mn	0.05 – 0.95	about 0.5 – 3.0	about 0.5 – 0.95
P	0 – 0.03	0 – about 0.03	0 – 0.03
S	0 – 0.01	0 – about 0.01	0 – 0.01
Cr	9 – 15	about 10 – 14	about 10 – 14
Ni	1.0 – 4.5	about 0.2 – 2.0	1.0 – 2.0

Element	From Instant Claims (weight percent)	Miyata et al. ('128) (weight percent)	Overlap (weight percent)
Al	0 – 0.05	0	0
N	0 – 0.1	0 – about 0.03	0 – about 0.03
Cu	0.05 – 5	about 0.2 – 1.0	about 0.2 – 1.0
Fe	balance	balance	balance

The Examiner notes that the disclosed amounts of carbon, silicon, manganese, phosphorus, sulfur, chromium, nickel, aluminum, nitrogen, and copper of the martensitic stainless steel alloy disclosed by Miyata et al. ('128) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed composition from the composition disclosed by Miyata et al. ('128) because Miyata et al. ('128) discloses the same utility (martensitic stainless steel alloy) throughout the disclosed ranges.

With respect to the hardness range of 30 – 45 HRC and "the amount of carbides in grain boundaries of the prior austenite is not more than 0.13 volume %." in claims 1 and 3, the Examiner notes that Miyata et al. ('128) discloses substantially the same composition in addition to forming into a pipe (plastically processed history) (abstract and col. 2, lines 29-38). Therefore, these properties would be expected. MPEP 2112.01 I.

With respect to the formula $0.2 \leq Mo + Cu/4 \leq 5$ of claims 1 and 3, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and Foley 1943 C.D. 357, 553 O.G.

177; 57 USPQ 117, Saklatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select the desired amounts of copper and molybdenum from the ranges disclosed by Miyata et al. (‘128) such that the formula would be satisfied because Miyata et al. (‘128) discloses the same utility throughout the disclosed ranges.

Still regarding claim 3, Miyata et al. ('128) discloses up to 0.3 weight percent titanium, vanadium, and niobium, which overlaps the ranges of 0.005 to 0.5 weight percent of at least one of titanium, vanadium, and niobium as instantly claimed (col. 4, lines 1-17).

Claims 1-8 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hara et al. (US 5,716,465).

In regards to claims 1-8 and 13-20, Hara et al. ('465) discloses a martensitic stainless steel that would have utility in oil and gas wells having a composition relative to that of the instant invention as shown in the table below (abstract and col. 1, lines 12-48).

Element	**From Instant Claims (weight percent)**	**Hara et al. (‘465) (weight percent)**	**Overlap (weight percent)**
C	0.02 – 0.10	0.005 – 0.035	0.02 – 0.035
Si	0.05 – 1.0	0 – 0.50	0.05 – 0.50
Mn	0.05 – 0.95	0.1 – 1.0	0.1 – 0.95
P	0 – 0.03	0 – 0.03	0 – 0.03
S	0 – 0.01	0 – 0.005	0 – 0.005

Element	From Instant Claims (weight percent)	Hara et al. ('465) (weight percent)	Overlap (weight percent)
Cr	9 – 15	8 – 13	9 – 13
Ni	1.0 – 4.5	1.5 – 5.0	1.5 – 4.5
Al	0 – 0.05	0 – 0.06	0 – 0.05
N	0 – 0.1	0 – 0.01	0 – 0.01
Cu	0.05 – 5	1.0 – 4.0	1.0 – 4.0
Mo	0.05 – 5	1.0 – 3.0	1.0 – 3.0
Fe	balance	balance	balance

The Examiner notes that the disclosed amounts of carbon, silicon, manganese, phosphorus, sulfur, chromium, nickel, aluminum, nitrogen, copper and molybdenum of the martensitic stainless steel alloy disclosed by Hara et al. ('465) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed composition from the composition disclosed by Hara et al. ('465) because Hara et al. ('465) discloses the same utility (martensitic stainless steel alloy) throughout the disclosed ranges.

With respect to the hardness range of 30 – 45 HRC and “the amount of carbides in grain boundaries of the prior austenite is not more than 0.13 volume %." in claims 1-8 and 13-20, the Examiner notes that Hara et al. ('465) discloses substantially the same composition in addition to hot rolling and cold rolling to form a pipe (plastically processed history) (abstract and col. 2, lines 12 - 23). Therefore, these properties would be expected. MPEP 2112.01 I.

With respect to the formulas $0.2\% \leq Mo + Cu/4 \leq 5\%$ and $0.55\% \leq Mo + Cu/4 \leq 5\%$ of claims 1-8 and 13-20, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and

Foley 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, Saklatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select the desired amounts of copper and molybdenum from the ranges disclosed by Hara et al. ('465) such that the formula would be satisfied because Hara et al. ('465) discloses the same utility throughout the disclosed ranges.

Still regarding claims 3-4, 7-8, 15-16 and 19-20, Hara et al. (‘465) discloses adding 0.005 to 0.1 weight percent titanium in order to inhibit grain growth and the deterioration of toughness, which overlaps the range of 0.005 to 0.5 weight percent titanium as claimed in the instant invention (abstract and col. 5, lines 24-35).

Still regarding claims 5-6, 7-8, 17-18 and 19-20, Hara et al. ('465) discloses adding 0.001 to 0.02 weight percent calcium to bring inclusions to a spherical form, which overlaps the range of 0.0003 to 0.005 weight percent calcium as claimed in the instant invention (abstract and col. 5, lines 37-43).

With respect to the recitation “the martensitic stainless steel having a structure resulting from one of quenching, air cooling, quenching followed by a 400°C or lower tempering treatment, or air cooling followed by a 400°C or lower tempering treatment” in claims 13-20, Hara et al. (‘465) discloses air cooling (Table 2).

With respect to the recitation “and the amounts of Cu and Mo effective to form a sulfide layer on a formed chromium oxide layer” in claims 13-20, the Examiner asserts

that Hara et al. (‘465) discloses amounts of copper and molybdenum effective to form this sulfide layer because Hara et al. (‘465) discloses the same or a substantially similar composition. MPEP 2112.01 I.

With respect to the recitation “the sulfide layer formed as a result of the martensitic stainless steel being subjected to a sulfur-containing environment" in claims 13-20, Hara et al. (‘465) discloses the same or a substantially similar composition and subjecting the composition to a sulfide-containing atmosphere (col. 6, lines 39-50). Therefore, formation of the sulfide layer would be expected. MPEP 2112.01 I.

Claims 1-8 and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woods (US 6,716,291) in view of the ASM Metals Handbook Volume 1 (pg. 145, col. 3 and pg. 146, col. 2).

In regards to claims 1-8 and 13-20, Woods (‘291) discloses a martensitic stainless steel composition relative to the instant invention as shown in the table below (abstract).

Element	**From Instant Claims (weight percent)**	**Woods (‘291) (weight percent)**	**Overlap (weight percent)**
C	0.02 – 0.10	about 0.10 – 2	about 0.10
Si	0.05 – 1.0	0 – about 2	0.05 – 1.0
Mn	0.05 – 0.95	about 0.1 – 2.0	about 0.1 – 0.95
P	0 – 0.03	0 – about 1	0 – 0.03
S	0 – 0.01	0 – about 1	0 – 0.01
Cr	9 – 15	about 5 – 15	9 – 15
Ni	1.0 – 4.5	about 0.15 - 15	1.0 – 4.5
Al	0 – 0.05	0	0
N	0 – 0.1	0	0
Cu	0.05 – 5	-	-
Mo	0.05 – 5	0.1 – 10	0.10 – 5
Fe	balance	balance	balance

The Examiner notes that the disclosed amounts of carbon, silicon, manganese, phosphorus, sulfur, chromium, nickel, aluminum, nitrogen and molybdenum of the martensitic stainless steel alloy disclosed by Woods ('291) overlaps the composition of the instant invention, which is prima facie evidence of obviousness. MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed amounts of carbon, silicon, manganese, phosphorus, sulfur, chromium, nickel, aluminum, nitrogen and molybdenum from the composition disclosed by Woods ('291) because Woods ('291) discloses the same utility (martensitic stainless steel alloy) throughout the disclosed ranges.

Woods ('291) discloses a martensitic stainless steel as discussed above, but Woods ('291) does not specify 0.05 to 5 weight percent copper (pg. 145, col. 3).

The ASM Metals Handbook Volume 1 discloses that using copper in excess of 0.20 weight percent is beneficial to atmospheric corrosion resistance (pg. 145, col. 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add 0.20 weight percent copper, as disclosed by the ASM Metals Handbook Volume 1, to the steel composition, as disclosed by Woods ('291), in order to improve atmospheric corrosion resistance, as disclosed by the ASM Metals Handbook Volume 1 (pg. 145, col. 3).

Still regarding claims 3-4, 7-8, 15-16 and 19-20, Woods ('291) discloses a martensitic stainless steel as discussed above, but Woods ('291) does not specify "at least one of the elements of Ti: 0.005-0.5%, V: 0.005-0.5% and Nb: 0.005-0.5%".

The ASM Metals Handbook Volume 1 discloses that the addition of 0.02 weight

percent niobium would increase yield strength by about 70 to 100 MPa (pg. 146, col. 2).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add 0.02 weight percent niobium, as disclosed by the ASM Metals Handbook Volume 1, to the steel composition, as disclosed by Woods ('291), in order to increase yield strength by about 70 to 100 MPa, as disclosed by the ASM Metals Handbook Volume 1 (pg. 146, col. 2).

Still regarding claims 5-6, 7-8, 17-18 and 19-20, Woods discloses not more than about 5 weight percent, which overlaps the range of 0.0002 to 0.005 weight percent boron as claimed (col. 2, lines 25-30).

With respect to the hardness range of 30 – 45 HRC and "the amount of carbides in grain boundaries of the prior austenite is not more than 0.13 volume %." in claims 1 and 3, the Examiner notes that Woods ('291) discloses a hardness in the range of 40-50 HRC; cooling rapidly in air, oil, or water; and tempering at a temperature in the range of 300°F - 1200°F (149°C - 650°C) (col. 1, lines 38-57). Therefore, the amount of carbides in grain boundaries of the prior austenite is not more than 0.13 volume % would be expected. MPEP 2112.01 I. Additionally, Woods ('291) discloses forming dies, shafts, drill heads, and other related items (plastically process history) (col. 4, lines 57-65).

With respect to the formulas $0.2\% \leq Mo + Cu/4 \leq 5\%$ and $0.55\% \leq Mo + Cu/4 \leq 5\%$ of claims 1-8 and 13-20, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, In re Cooper and Foley 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, Saklatwalla v. Marburg, 620 O.G. 685, 1949 C.D. 77, and In re Pilling, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In

absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. In re Austin, et al., 149 USPQ 685, 688. It would have been obvious to one of ordinary skill in the art to select the desired amounts of copper and molybdenum from the ranges disclosed by Woods (‘291) in view of the ASM Metals Handbook Volume 1 such that the formula would be satisfied because Woods (‘291) in view of the ASM Metals Handbook Volume 1 discloses the same utility throughout the disclosed ranges.

With respect to the recitation “and the amounts of Cu and Mo effective to form a sulfide layer on a formed chromium oxide layer, the sulfide layer formed as a result of the martensitic stainless steel being subjected to a sulfur-containing environment" in claims 13-20, Woods (‘291) in view of the ASM Metals Handbook Volume 1 discloses the same or a substantially similar composition. Therefore, formation of the sulfide layer would be expected. MPEP 2112.01 I.

Response to Arguments

Applicant's arguments filed 21 August 2009 have been fully considered but they are not persuasive.

First, the Applicant primarily argues that it is patently obvious that Woods (‘291) is concerned with a cast steel that has a martensitic formation as well as self tempering in the stage of cooling after casting whereas the invention is directed to a martensitic stainless steel with a plastically processed history and the specially cooled and

tempered cast steel of Woods (‘291) cannot be considered to have a plastically processed history as required by the claims.

In response, the Examiner notes that the scope of casting includes forming into a shape and the broadest reasonable interpretation of "plastically processed history" includes sculpting or molding into a shape. Therefore, the scope of “plastically processed history” includes “casting” since the instant specification does not define what is included or excluded by this phrase.

Second, the Applicant primarily argues that the Examiner's reasoning for incorporating copper into the composition of Woods (‘291) fails to take into account the teachings of Woods (‘291) since there is no reason for adding copper to the composition of Woods ('291).

In response, the Examiner notes that one of the concerns of Woods (‘291) is corrosion resistance (col. 2, lines 1-11) and one skilled in the art, based upon the disclosure of the ASM Metals Handbook Volume 1, would know that the inclusion of copper in steel improves corrosion resistance.

Third, the Applicant primarily argues that Woods (‘291) covers inconceivable distant territory when describing the bounds of the invention, and this distant territory would not be blindly applied for the claimed steel material by one of skill in the art. For example, "not more than 1% S", "not more than 1%P", and "not more than 5%B" describe wide ranges of these alloying elements that one of skill in the art would address with skepticism as to their credibility.

In response, the normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a a disclosed set of percentage ranges is the optimum combination of percentages. MPEP 2144.05 II.

Fourth, the Applicant primarily argues that the touching of the lower limit of 0.1 weight percent in Woods ('291) with the range of carbon in claim 1 does not establish obviousness since this lower limit has no significance. Based on the Examples in Woods ('291), all of which are above 0.15%, one of skill in the art would not find a range of 0.02 to 0.10% obvious based on the disclosure of Woods ('291). The Applicant further argues that the mere fact that there is touching of carbon does not mean that one of skill in the art would consider Woods ('291) to encompass the much lower range of carbon defined in the claims.

In response, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. MPEP 2123 II. Since the broad disclosure of Woods ('291) includes 0.10 weight percent carbon, one skilled in the art would consider 0.10 weight percent carbon for the alloy.

Fifth, the Applicant primarily argues that copper is effective to prevent the ingress of H_2S into the chromium oxide film by forming sulfide in the environment containing a trace of H_2S and to enhance the stability of chromium oxides further when molybdenum and/or tungsten co-exist with sulfides. However, neither Woods (‘291) nor the ASM Metals Handbook says anything regarding the effects exerted by copper in this regard. Moreover, neither of these references associates with defining the problem to be solved as being an oil well steel material excellent in resistance to sulfide stress corrosion

cracking, wear resistance, and local corrosion resistance. Therefore, there is no motivation to modify Woods (‘291) with the relevant sentences of the ASM Metals Handbook and attempt to solve the problem that the claimed invention is drawn to.

In response to applicant's argument, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Sixth, the Applicant primarily argues that one continuing issue in this application is whether the Examiner can assume that the claimed amount of carbides is present in Hara (‘465) and Miyata et al. (‘128) and Applicants have continually insisted that the processing of Hara (‘465) and Miyata et al. (‘128) is not similar to that used by Applicants to obtain the claimed amount of carbides and because of this difference in processing, it is not proper for the Examiner to assume that the carbide amount claim limitation missing from each of Miyata et al. (‘128) and Hara (‘465) is present.

In response, although from Figure 2.132 of Exhibit A provided by Applicant, it appears that one skilled in the art would expect some carbide precipitation from tempering in the range of 500°C to 700°C, as is disclosed in Hara et al. (‘465) since Hara (‘465) discloses tempering in this range. The amount of carbide precipitation in Hara (‘465) expected remains in question. The amount of carbides in the grain boundaries of prior austenite would be different than the amount of carbides present throughout the alloy. Hara ('465) and Miyata et al. ('128) do not relate in the same way to the instant invention because Miyata et al. ('128) does not require tempering or

teaches a tempering step substantially equal to the Ac1 point or lower and therefore would not necessarily have carbides (as Examples and the broad disclosure do not require tempering). Once a reference teaching product appearing to be substantially identical is made the basis of a rejection, and the examiner presents evidence or reasoning tending to show inherency, the burden shifts to the applicant to show an unobvious difference. The PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his [or her] claimed product. Whether the rejection is based on inherency' under 35 U.S.C. 102, on prima facie obviousness' under 35 U.S.C. 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)), see MPEP 2112. Applicant has not clearly shown an unobvious difference between the instant invention and the prior art's product.

Seventh, the Applicant primarily argues that with the amendment modifying the carbide amount to 0.13% by volume, the Examiner must now assume that only a 50°C would produce a reduction in carbide amount of a third less and there is no basis for the Examiner to assume that the claimed carbide amount would be inherently found in the steels of Miyata et al. ('128) and Hara ('465). This means that a prima facie case of obviousness is not established by this prior art against the pending claims and the rejection needs to be withdrawn for this reason.

In response, the Examiner notes that it is the Applicant's burden to show that the carbides (or lack thereof) would not be present in the prior art products and its fairness

is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977)), see MPEP 2112. Applicant has not clearly shown an unobvious difference between the instant invention and the prior art's product.

Eighth, the Applicant primarily argues that in addressing the hardness limitations, the Examiner takes the position that the tensile strength shown in Table 3 of 732 or less in Miyata et al. ('128), which equates to an HRC of 18.2, and that shown in Table 2 of Hara ('465) i.e. 824 MPa, equates to an HRC value of 23.5 are not absolutes so that higher tensile strengths and therefore hardnesses are within the teachings of Miyata et al. ('128) and Hara ('465) and this reasoning is improper to support an allegation that the claimed hardness levels are present or somehow obvious based on the cited prior art.

In response, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or non-preferred embodiments. MPEP 2123 II. Since the broad disclosure of Miyata et al. ('128) and Hara ('465) disclose substantially similar compositions in addition to substantially similar processing. These properties would be expected. It is improper for Applicant to assume that the tensile strengths and/or hardnesses in the disclosed examples of Miyata et al ('128) and Hara ('465) are the highest attainable by a reference unless such is specified.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessee Roe whose telephone number is (571)272-5938. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy V. King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/
Supervisory Patent Examiner, Art Unit 1793

/JR/